Claims

1. A method for reducing catabolism of extracellular secreted amyloid precursor protein comprising

contacting a mammalian cell with an agent that reduces the amount or rate of binding of amyloid precursor protein (APP) with the very low density lipoprotein receptor (VLDL-R).

2. The method according to claim 1, wherein the agent is an agent which binds to the amyloid precursor protein.

3. The method according to claim 2, wherein the agent is an antibody or an antibody fragment containing the antigen binding domain that binds to amyloid precursor protein.

4. The method according to claim 2, wherein the agent is a functional derivative or fragment of VLDL-R.

5. The method according to claim 1, wherein the agent is an agent that binds to VLDL-R.

6. The method according to claim 5, wherein the agent is an antibody or an antibody fragment containing the antigen binding domain that binds to VLDL-R.

7. The method according to claim 5, wherein the agent is 39 kDa receptor associated protein (RAP) or a RAP fragment containing the binding domain that binds to VLDL-R.

8. The method according to claim 5, wherein the agent is functional derivative or fragment of amyloid precursor protein that binds to VLDL-R.

9. The method according to claim 1, wherein said contacting occurs in vitro.

10. A method for reducing the rate of onset or the severity of Alzheimer's disease, comprising

administering to an animal one or more agents that bind to the APP-binding site on VLDL-R (Group I agents) and/or one or more agents that bind to the VLDL-R-binding site found on APP (Group II agents) in an amount effective to reduce the rate of APP binding to VLDL-R.

11. The method according to claim 10, wherein the agent is an agent which binds to the amyloid precursor protein.

12. The method according to claim 11, wherein the agent is an antibody or an antibody fragment containing the antigen binding domain that binds to amyloid precursor protein.

13. The method according to claim 11, wherein the agent is a functional derivative or fragment of VLDL-R.

14. The method according to claim 10, wherein the agent is an agent that binds to VLDL-R.

15. The method according to claim 14, wherein the agent is an antibody or an antibody fragment containing the antigen binding domain that binds to VLDL-R.

16. The method according to claim 14, wherein the agent is 39 kDa receptor associated protein (RAP) or a RAP fragment containing the binding domain that binds to VLDL-R.

17. The method according to claim 14, wherein the agent is functional derivative or fragment of amyloid precursor protein that binds to VLDL-R.

18. The method according to claim 10, wherein the animal is a human.

19. A pharmaceutical composition comprising

one or more agents that bind to the APP-binding site on VLDL-R (Group I agents) and one or more agents that bind to the VLDL-R-binding site found on APP (Group II agents), and

a pharmaceutically acceptable carrier.

20. The pharmaceutical composition according to claim 19, wherein the agent which binds to the amyloid precursor protein is a functional derivative or fragment of VLDL-R.

21. The pharmaceutical composition according to claim 19, wherein the agent that binds to the APP-binding site on VLDL-R is an antibody or an antibody fragment containing an antigen binding domain that binds to VLDL-R.

22. The pharmaceutical composition according to claim 19, wherein the agent that binds to the APP-binding site on VLDL-R is 39 kDa receptor associated protein (RAP) or a RAP fragment containing the binding domain that binds to VLDL-R.

23. The pharmaceutical composition according to claim 19, wherein the agent that binds to the APP-binding site on VLDL-R is functional derivative or fragment of amyloid precursor protein that binds to VLDL-R.

24. A pharmaceutical composition comprising

a functional derivative or fragment of VLDL-R that binds to the amyloid precursor protein, and

a pharmaceutically acceptable carrier.

25. A pharmaceutical composition comprising

one or more agents that bind to the APP-binding site on VLDL-R (Group I agents)

26. The pharmaceutical composition according to claim 25, wherein the agent that binds to the APP-binding site on VLDL-R is an antibody or an antibody fragment containing an antigen binding domain that binds to VLDL-R.

27. The pharmaceutical composition according to claim 25, wherein the agent that binds to the APP-binding site on VLDL-R is 39 kDa receptor associated protein (RAP) or a RAP fragment containing the binding domain that binds to VLDL-R.

28. The pharmaceutical composition according to claim 25, wherein the agent that binds to the APP-binding site on VLDL-R is functional derivative or fragment of amyloid precursor protein that binds to VLDL-R.